

A. EXECUTIVE SUMMARY:

Title: Development of courses for a Master's in Nuclear Environmental Protection

Synopsis: This proposal aims to develop a curriculum in nuclear environmental protection leading to a Master's degree in twelve months for full time students and in two to three years for part time students. The curriculum requirements for a total of 30 credit hours will consist of seven core courses, one elective course, and a 6-credit-hour mandatory 'Master's Degree Final Project', which includes writing and defending a report (mini-thesis). Three options for the Final Project will be developed to allow credit for summer internships at either VSL or in industry, or a research dissertation. The program will require the development of the seven new core courses, two new elective courses, and the three Final Project options. In addition, 35 existing courses at CUA will be recognized as potential electives for this new Masters' program. Development and approval of the entire program will take two years, such that the first courses would be offered in the Fall semester of 2010. Plans for future courses are also discussed in this proposal. The requested funding will support the course development efforts for the first year. This will include further development of the overall program details (including administration, outreach, and recruitment) and development of three new core courses (expected to be Radiochemistry, Materials Science of Nuclear Waste Forms, and Radioactive Waste Management and Disposal – Part 1) and possibly one new elective course (Instrumentation and Methods Lab). Also during the first year, planning would begin and industrial, government, and international contacts would be established to support the development of the three Final Project options. Completion of the balance of the program is expected to require a similar level of funding in the second year, for which a subsequent request will be prepared.